FOREWORD

An abiding characteristic of the Year 2000 computer technology problem (Y2K) is the rapidly changing status of systems remediation and contingency planning activities. Computer supported systems and embedded microprocessor chips are being repaired or replaced daily in emergency management organizations at the Federal, State, and local levels. The situation is also changing daily regarding the publication, staff training and exercising of Y2K contingency plans – which should be prepared for every mission critical system.

There is a high level of interest in the Emergency Services Sector (of which emergency management agencies are the principal component) of the President's Council on Year 2000 Conversion because these services are vital to public safety and public health.

In order to present an updated picture of the Y2K preparedness status of State and territorial emergency management agencies, as we near the final phase of Y2K planning, the National Emergency Management Association (NEMA), in cooperation with the Federal Emergency Management Agency (FEMA), conducted a Y2K readiness survey of the States and territories in late May and early June, 1999. This report presents the results of the survey. The survey highlights were included in the Emergency Services Sector 3rd quarterly report to the President's Council on July 2, 1999.

The main survey topics were:

- the expected Y2K compliance of mission critical State emergency management systems,
- the confidence of emergency managers in the Y2K preparedness of critical infrastructure systems,
- coordination between State emergency management and State Y2K coordinators,
- the status of Y2K contingency planning, training, and exercising
- cooperation of the news media,
- outreach to other organizations, and
- usage of the World Wide Web.

Overall, the results showed significant progress, since the previous survey of November-December, 1998, in the Y2K compliance of automated systems which directly support emergency management functions and the delivery of emergency services.

Nevertheless, some States and territories still have significant work to do in achieving Y2K compliance of some emergency management supporting systems, obtaining timely and accurate information regarding key infrastructure elements, completing contingency plans, and training staff and exercising those plans.

We wish to thank the NEMA Y2K Committee – Mike Austin (AZ) Chair, members Myra Lee (OR), Dave McMillion (MD), Jim Green (MT), and Dave Liebersback (AK), and supported by Jack Jowett of New York, for its valuable work in designing, conducting and reporting on the survey. Thanks go also to members of FEMA's Preparedness, Training, and Exercises Directorate Y2K team – Megs Hepler (Team Leader), Philip McIntire, and Dennis Atwood (Project Officer) for their advice, assistance, and support in designing the survey and processing the results.

NEMA has agreed to collaborate with FEMA in conducting a final Y2K preparedness survey in late August-early September, 1999, so that a timely assessment of potential problem areas can be made. This information will be invaluable in helping to focus and prioritize last minute readiness efforts and events management arrangements.

We urge the States and territories to continue sharing their Y2K successes with their partners in the emergency management community; and, to seek assistance from NEMA and FEMA in completing any unfinished Y2K preparedness activities.

Kay C. Goss, CEM® Associate Director for Preparedness, Training, and Exercises Federal Emergency Management Agency Ellen Gordon (Iowa)
President,
National Emergency
Management Association



NEMA State Emergency Management Y2K Survey







June 1999

TABLE OF CONTENTS

SUMMARY	1
ANALYSIS OF THE DATA	6
EOC Internal Command and Control Systems Computers Radios Telephone Exchanges EAS (State Warning Point) 911 Other	7 8 9 10 11 12
State Systems EAS Beyond State Warning Point Police Dispatch Fire Dispatch	13 14 15
Comparison of EOC Internal Command and Control Systems	16
Critical Sectors	18
Interaction Between State Emergency Management and State Y2K Coordinators	21
Contingency Planning Status Planning Training Exercising	22 23 24
News Media Cooperation Print Media Electronic Media	25 27
Outreach Activities	29
World Wide Web Usage	30
Additional Comments by Survey Respondents	32

SUMMARY

In cooperation with the Federal Emergency Management Agency (FEMA) the National Emergency Management Association (NEMA) surveyed its membership in May/June 1999 about preparedness for the Year 2000 (Y2K). The survey was conducted to update information obtained in November/December 1998. Fifty-five responses were received from States, the District of Columbia, and U.S. Territories. Questions focused on:

- the expected Y2K compliance of mission critical State emergency management systems
- confidence of emergency managers in the Y2K preparedness of critical infrastructure sectors
- coordination between State emergency management and State Y2K coordinators
- status of Y2K contingency planning, training and exercising
- · cooperation of the news media
- outreach to other organizations
- usage of the World Wide Web

Data were requested to be submitted by June 1, 1999. Some responses were received earlier, some later, but they generally represent a snapshot as of early June. It is important to keep this "as of" date in mind. Many responses indicated that further progress was expected in system compliance, contingency planning, training, and exercising even as this report was being compiled.

This report presents detailed results of the survey. Most answers to the survey questions are presented statistically in terms of percentages. Charts and graphs display the nationwide results, beginning on page 6. A set of Appendixes presents the results for jurisdictions within each FEMA Region. Following is a summary of the survey results.

Y2K Compliance of Mission Critical Emergency Management Systems

Of the Internal Command and Control Systems in State Emergency Operations Centers (EOC), Radio systems are indicated to be in the best shape. Eighty-six percent of respondents said that their Radio systems are fully Y2K compliant now (p. 8). Another 7% of respondents expect their Radio systems to be compliant, bringing the total to 93%. For most other kinds of systems, around 60% of respondents say that each is fully compliant now. For Computer systems, another 38% of respondents expect their systems to be compliant, bringing the total to 96% (p. 7). Eighty-five percent of respondents expect their Telephone Exchanges to be compliant (p. 9), and 76% of respondents expect their Emergency Alert Systems (EAS) to be compliant (p. 10). Overall, 41 respondents (75%) said that their emergency management computers and

communications are compliant, or will be compliant by December 31, 1999; while 14 (25%) indicated potential problems with one or more system(s).

However, only 34% of respondents indicated that their 911 systems are fully compliant now, and only 22% more of respondents expected their 911 systems to be compliant (p. 11). This low rating may reflect in part the comment added by some respondents, that in their jurisdictions 911 systems were a responsibility of local governments. The same comment applied to EAS, Police Dispatch, and Fire Dispatch (pp. 13-15), which had many responses of "unknown" or "not applicable," or were simply left blank.

Y2K Preparedness of Critical Infrastructures

Respondents were asked about their confidence in the preparedness of critical sectors — those directing affecting public safety, public health, and daily economic activity (p. 18). The Financial Services and Power sectors received the most "Very Confident" responses. Seven of the 11 sectors received better than 90% "Confident" or "Very Confident" responses: Fire (98%), Law Enforcement (96%), Water (94%), Power (93%), Financial Services (92%), Communications (92%), and Sewer (92%). There was slightly less confidence in the 911 sector. The Transportation, Technological Hazards, and Health Services sectors were the biggest question marks, receiving 20% or more responses of "Not Sure." The most concern was expressed for the Health Services sector. Overall, 28 respondents (51%) indicated that they were "Confident" or "Very Confident" that key infrastructure sectors will be able to provide essential services, while 27 respondents (49%) were "Not Sure" regarding one or more sectors. Of those 27, eight (15%) were also "Concerned" or "Very Concerned" about one or more sectors.

Coordination with State Y2K Coordinators

A large majority of respondents said that coordination occurred in their jurisdictions (p. 21). Only one respondent indicated that they did not coordinate activities with a State Y2K Coordinator. Seventy-five percent of respondents indicated that their State Y2K Coordinators concern themselves with compliance outside of State government systems. Eighty-six percent of respondents said that their State Y2K Coordinator requires vendors to the State to verify compliance.

Contingency Planning, Training, and Exercising

A large majority of respondents indicated progress. While only 16% of respondents indicated that their plans were "completed," others noted that planning is an ongoing process. For example, a draft plan may have been "completed," but not yet finalized pending the outcome of scheduled training sessions and exercises. Seventy-eight percent of respondents indicated that, while not "completed" yet, they expected to have a contingency plan completed, bringing the total to 94% of respondents (p. 22). A few

respondents commented that they expected to use their overall emergency operations plans rather than develop Y2K contingency plans.

Similar percentages apply to training and exercising. Some respondents said they had "completed" training and exercises, but many of these respondents also indicated that further training and exercises were scheduled. Altogether, 76% of respondents indicated that training had been conducted or was ongoing (p. 23). Eighty-one percent of respondents indicated that exercises had been conducted or were planned (p. 24).

Overall, 41 (75%) respondents indicated that they have published, or will publish, a contingency plan and conduct the associated training and exercises. Three (5%) replied that they will use existing plans. Seven (13%) did not provide dates for plan completion. Of those that do have or will have a plan, two (4%) did not indicate associated training, and four (7%) gave no exercise information.

Cooperation with News Media

Eighty-six percent of respondents said the print media were aware of their Y2K efforts (p. 25). However, only 5% said the print media were unaware; 9% of respondents did not answer this question. If the non-respondents are deducted, 95% of those who responded to the question said the print media were aware. Likewise, 65% of survey respondents said the print media were helpful, but only 13% said the print media were unhelpful; 22% did not respond (p. 26). So, of those who responded to this question, 83% said the print media were helpful.

Eighty-four percent of respondents said the electronic media were aware of their Y2K efforts (p. 27). However, only 7% said the electronic media were unaware; 9% of respondents did not answer this question. Therefore, of those who responded to this question, 92% said the electronic media were aware. Likewise, 65% of survey respondents said the electronic media were helpful, but only 10% said the electronic media were unhelpful; 25% did not respond (p. 28). So, of those who responded to this question, 87% said the print media were helpful.

Notably, of the respondents who said that the print media were "unaware" of their Y2K efforts, only one had engaged in outreach to the news media. Likewise, of the respondents who said that the electronic media were "unaware" of their Y2K efforts, only one had engaged in outreach to the news media. However, of the respondents who said the print media were "unhelpful" or "hostile," all had engaged in outreach to the news media. Likewise, of the respondents who said the electronic media were "unhelpful," all had engaged in outreach to the news media.

Outreach

Over 80% of respondents have been involved in outreach activities to Public Utilities (91%), News Media (87%), Local Businesses (85%), and Private Volunteer Organizations (84%) [p. 29]. Lesser numbers, but still a majority of respondents, have been involved in outreach to Grassroots Citizen Groups (76%), Schools (64%), and Religious Organizations (56%). A number of respondents added other audiences to this list, including Federal agencies, other State agencies, professional associations, local government, law enforcement task forces, and the general public. Some respondents noted that outreach efforts were conducted through other State offices, such as a Governor's Chief Information Officer, a Governor's Y2K Task Force, or a Public Utility Commission.

World Wide Web Usage

Eighty-four percent of respondents listed World Wide Web sites on which they post Y2K information (p. 30).

Conclusions

Summary narrative information from this survey was included in the 3rd quarterly update report of the Emergency Services Sector to the President's Council on Year 2000 Conversion. The Council's summary report is scheduled to be released on August 3, 1999. NEMA has agreed with FEMA to conduct another, perhaps final, Y2K preparedness survey in early September 1999.

To summarize the findings from each area of questions in the survey:

- Many of the mission critical State EOC systems appear to be in good shape, though none has yet reached 100% Y2K compliance in all jurisdictions. However, there is much less certainty about the status of EAS, 911 systems, and Police/Fire Dispatch.
- Emergency managers have high confidence in the preparedness of several critical infrastructure sectors. However, there are significant concerns about a few sectors, particularly Health Services.
- There is a high degree of coordination between emergency managers and other State Y2K preparedness efforts.
- A large majority of States are engaged in Y2K contingency planning. However, not all of those States have scheduled training and exercises to practice using their plans.
- In a large majority of States the news media are aware of the States' Y2K efforts. Slightly smaller, but still large, majorities of States consider the media to be helpful in "getting the word out" to the public.
- Most States have engaged in at least some outreach to local governments, the private sector, and public organizations.

These results show significant improvement over information given by the States in November/December 1998:

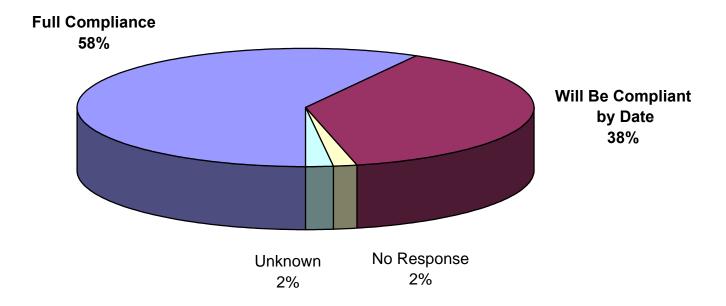
- Seventy-five percent of respondents now indicate that all of their critical emergency management computer and communication systems are or will be compliant by December 31, 1999, vs. 42% saying in December 1998 that they expected to be fully compliant by late 1999.
- State emergency managers' confidence in the Power sector is now very high, with 93% "Confident" or "Very Confident" in the ability of that sector to provide essential services, *vs.* most States expressing some concern in December 1998 over the possibility of power failures.
- Ninety-four percent of respondents now say that they have published or will publish a Y2K contingency plan, vs. 44% indicating in December 1998 that they were developing or had developed such a plan.

However, some States still have significant work to do to obtain information regarding the Y2K compliance of their own systems and the performance ability of some key infrastructure sectors.

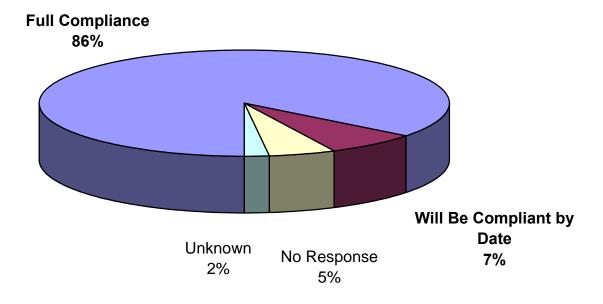
ANALYSIS OF THE DATA

EOC Internal Command and Control Systems: Computers

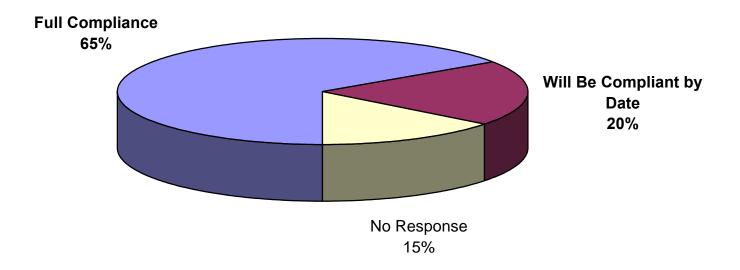
To what extent do you believe the indicated system will function? (Note: For this and following questions in this series, the printed survey referred to "E.C." systems. NEMA clarified that the intended reference was to EOC systems.)



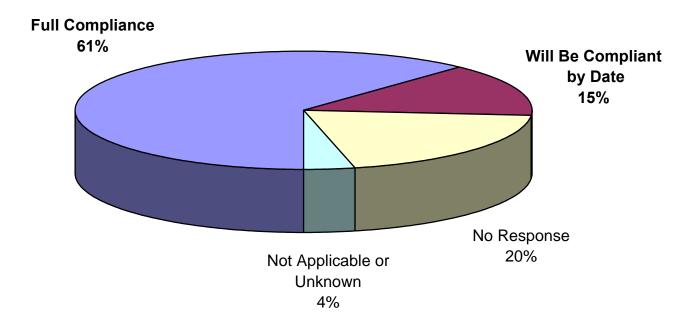
EOC Internal Command and Control Systems: Radios



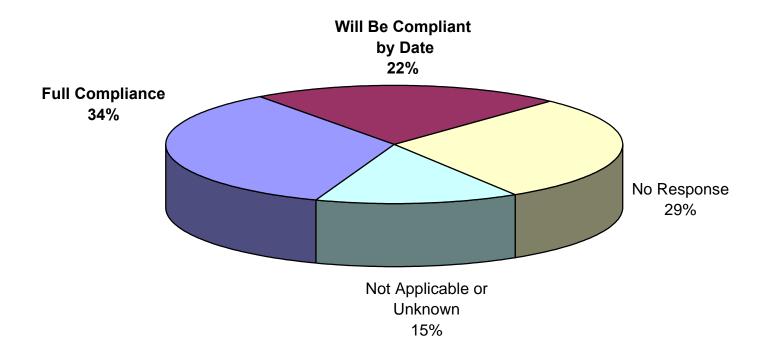
EOC Internal Command and Control Systems: Telephone Exchanges



EOC Internal Command and Control Systems: EAS (State Warning Point)

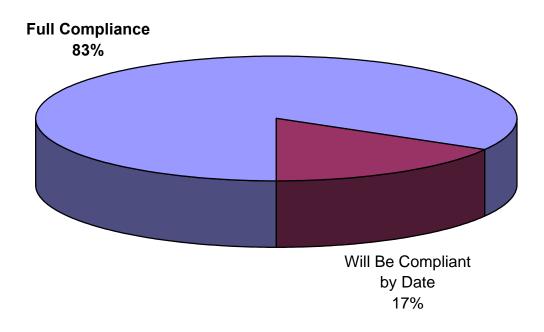


EOC Internal Command and Control Systems: 911

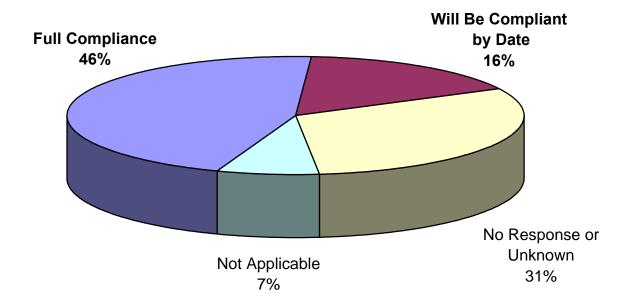


EOC Internal Command and Control Systems: Other

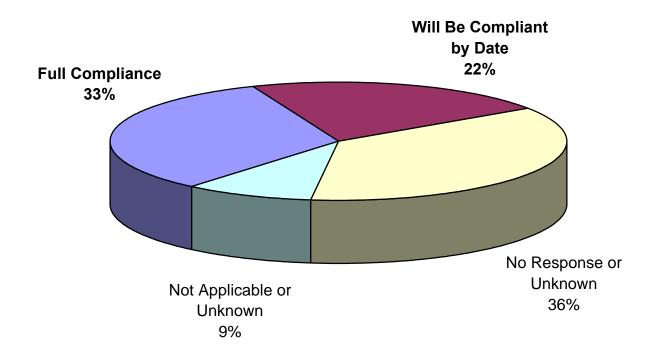
Six respondents listed other EOC internal command and control systems for which they indicated compliance now or in progress. Three of the respondents named particular communications systems used by their jurisdictions. Other generic types of systems mentioned included consoles, teletype, and satellite.



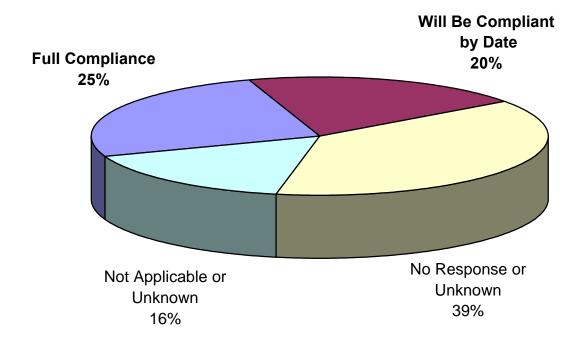
State Systems: EAS Beyond State Warning Point



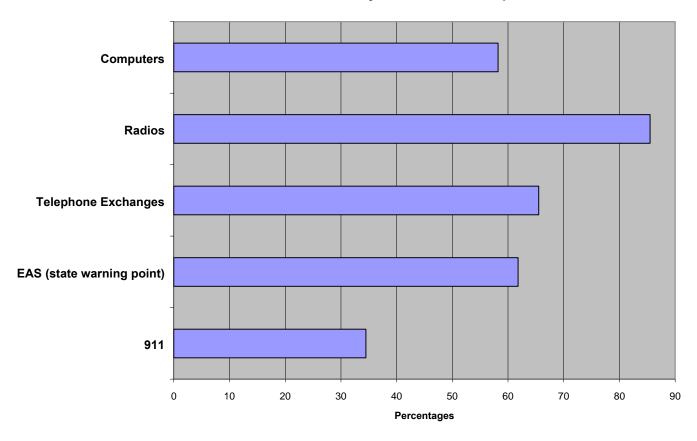
State Systems: Police Dispatch



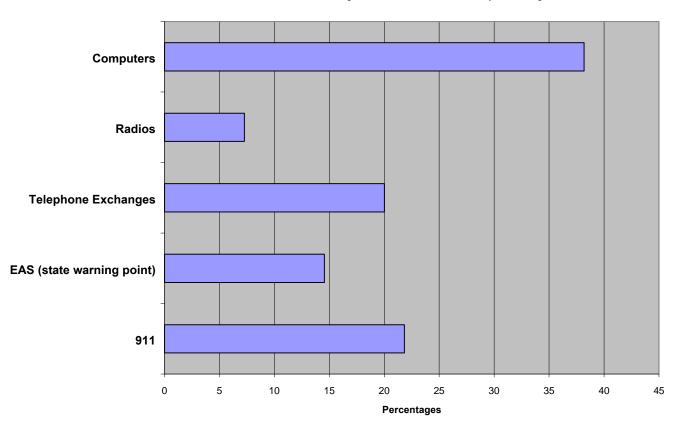
State Systems: Fire Dispatch



EOC Internal Command and Control Systems - 100% Compliance Now

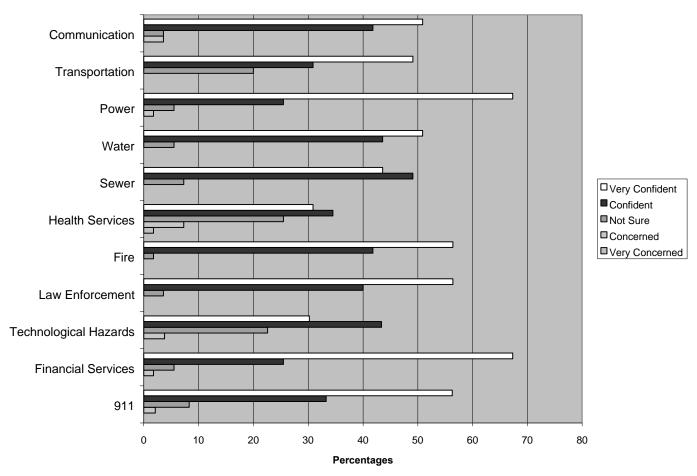


EOC Internal Command and Control Systems - Will be Compliant by Date



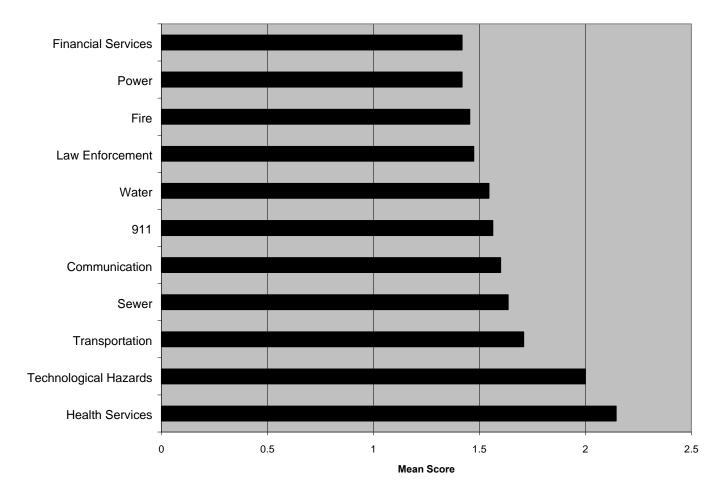
Critical Sectors

Are you reasonably assured that the following sectors are able to provide essential services to the public?

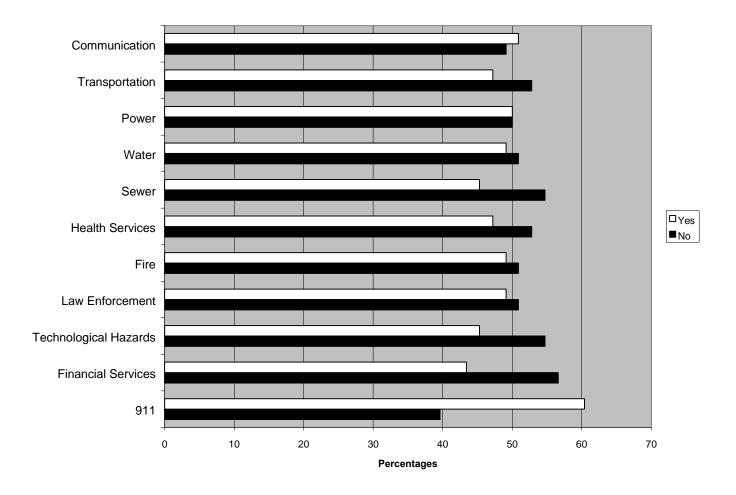


The Financial Services and Power sectors received the most "Very Confident" responses. If "Very Confident" and "Confident" responses are combined, seven of the 11 sectors scored better than 90%: Fire (98%), Law Enforcement (96%), Water (94%), Power (93%), Financial Services (92%), Communications (92%), and Sewer (92%). There is slightly less confidence in the 911 sector. The Transportation, Technological Hazards, and Health Services sectors are the biggest question marks, receiving 20% or more responses of "Not Sure." The most concern was expressed for the Health Services sector.

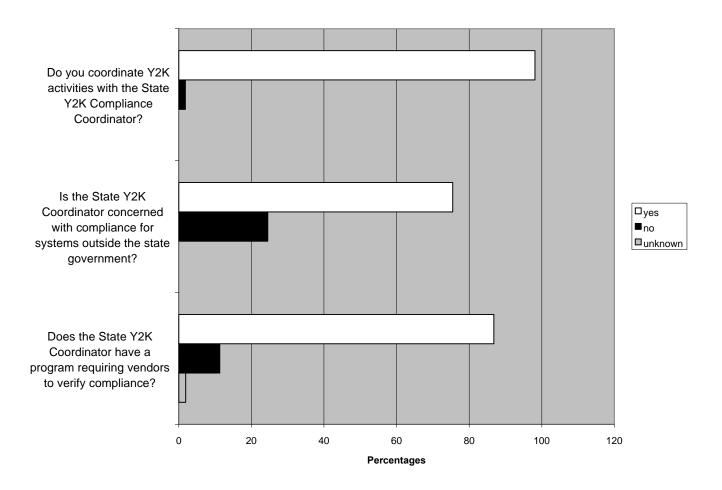
The following chart displays a mean score for each critical sector, based on Very Confident = 1, Confident = 2, Not Sure = 3, Concerned = 4, and Very Concerned = 5. A lower mean score is better. The Financial Services and Power sectors score best, with Fire and Law Enforcement also having mean scores better than 1.5. The Technological Hazards and Health Services sectors have the worst mean scores, 2.0 or higher.



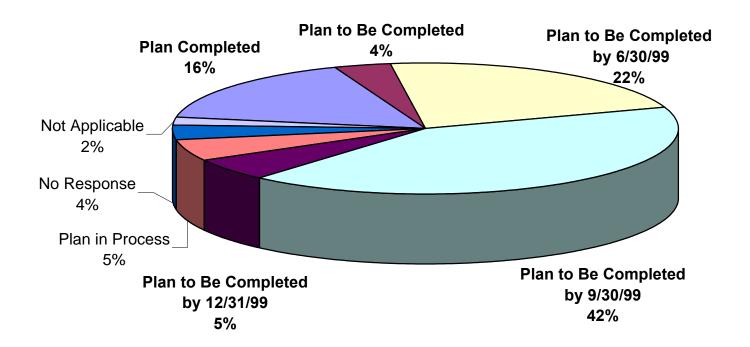
(For each critical sector) will there be an "EOC rep" to report problems? (Note: The printed survey referred to an "EC rep." NEMA clarified that the intended reference was



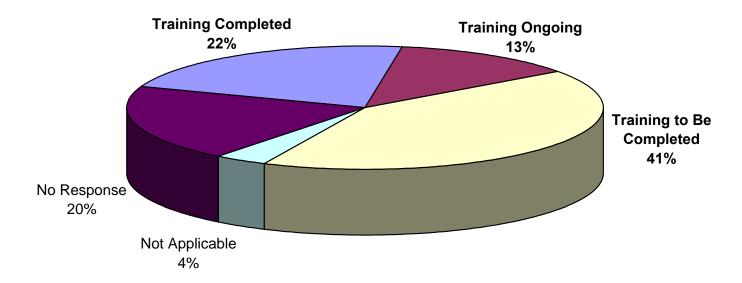
Interaction Between State Emergency Management and State Y2K Coordinators



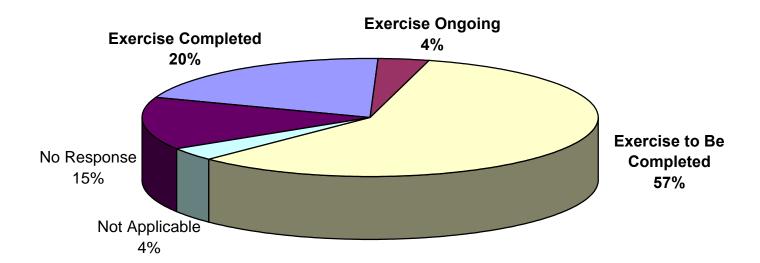
Contingency Planning Status: Planning



Contingency Planning Status: Training

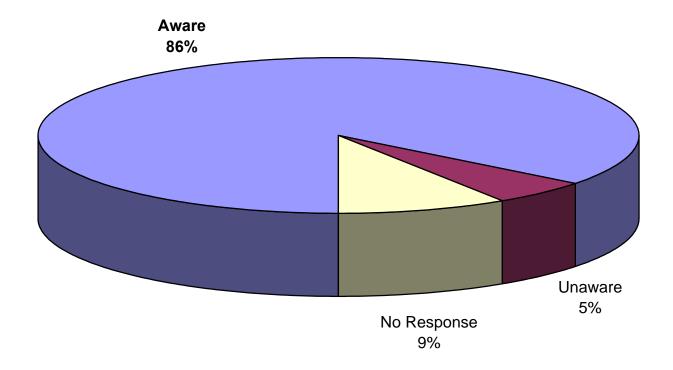


Contingency Planning Status: Exercises

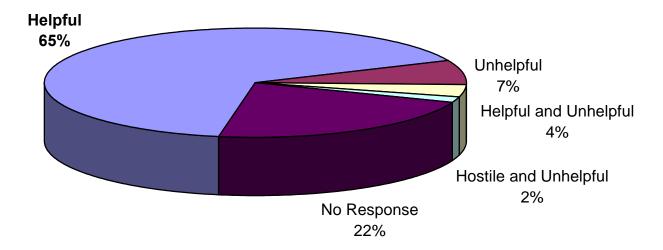


News Media Cooperation: Print Media

Are the print media serving your State/jurisdiction aware or unaware of your efforts to "get the word out" to the public?

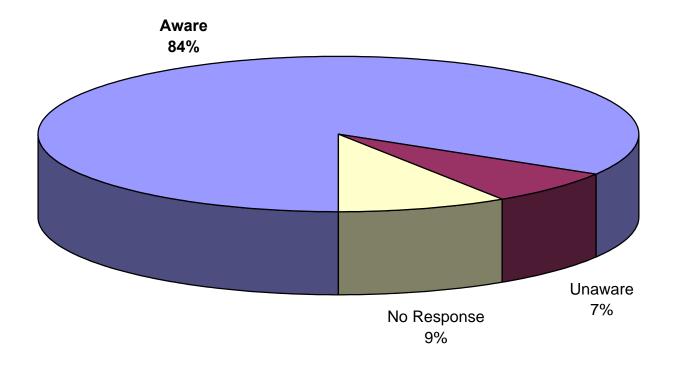


Are the print media serving your State/jurisdiction helpful or unhelpful in your efforts to "get the word out" to the public?

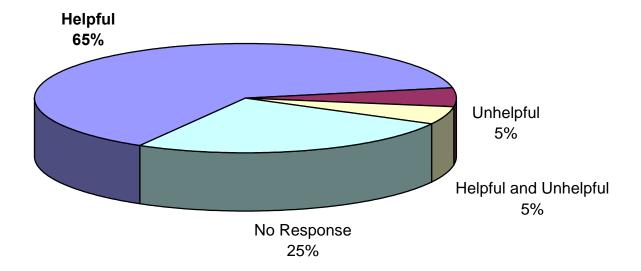


News Media Cooperation: Electronic Media

Are the electronic media serving your State/jurisdiction aware or unaware of your efforts to "get the word out" to the public?

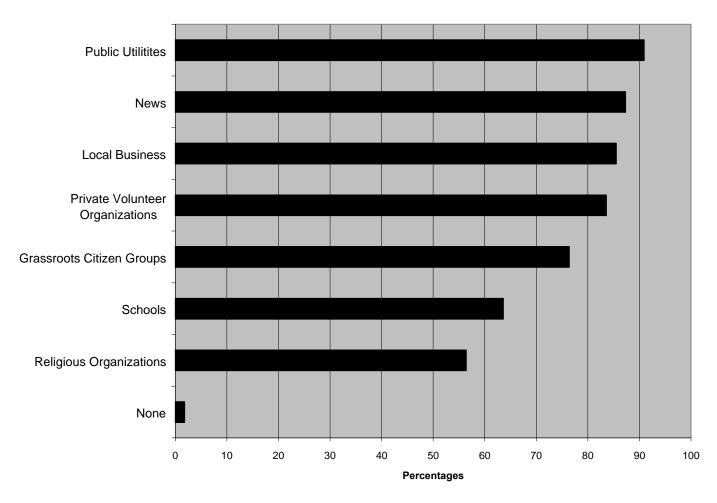


Are the electronic media serving your State/jurisdiction helpful or unhelpful in your efforts to "get the word out" to the public?



Outreach Activities

With which of the following organizations have you been involved in outreach activities?



It is worth noting that of the respondents who said that the print media were "unaware" of their Y2K efforts, only one had engaged in outreach to the news media. Likewise, of the respondents who said that the electronic media were "unaware" of their Y2K efforts, only one had engaged in outreach to the news media. However, of the respondents who said the print media were "unhelpful" or "hostile," all had engaged in outreach to the news media. Likewise, of the respondents who said the electronic media were "unhelpful," all had engaged in outreach to the news media.

World Wide Web Usage

47 respondents (84%) listed World Wide Web sites on which they post Y2K information:

State	Site Address
AK	http://www.state.ak.us/y2000.index.htm
AL	http://www.aema
AR	http://www.y2k.state.ar.us
AZ	http://www.state.az.us/es
CA	http://www.des.ca.gov
CO	http://www.dlg.oem2.state.co.us/oem/y2k.htm
CT	http://www.doit.state.ct.us/y2k
DC	http://www.y2k.dcgov.org
DE	http://www.state.de.us/oes/y2000/status.htm
GA	http://www2.state.ga.us/gema/broadcast/y2kgema.htm
HI	http://www.state.hi.us/y2k/index.html
IA	http://www.state.ia.us/government/dpd/emd/y2k.htm
ID	http://www2.state.id.us/bds/preparedness/y2k/y2k.htm
IL	http://www.state.it.us/y2k
IN	http://www.state.in.us/sema/y2k/index.html
KS	http://y2k.state.ks.us
KY	http://www.state.ky.us/year2000
LA	http://www.loep.state.la.us
MA	http://www.magnet.state.ma.us/y2k
MD	http://www.mema.state.md.us/y2k.html
ME	http://www.stae.me.us/bis/y2k/y2khome.htm
MI	http://www.mspemd.org
MN	http://www.dps.state.mn.us/emermgt
MO	http://www.y2k.state.mo.us
MS	http://www.its.state.ms.us
MT	http://www.state.mt.us/dma/des
	http://www.state.mt.us/ISD/year2000
NC	http://year2000.state.nc.us/
ND	http://www.state.nd.us/isd/y2k
NE	http://www.nebema.org
NH	http://www.nhoem.state.nh.us/y2k
NJ	http://www.state.nj.us/cio/nj2000.htm
NV	http://www.state.nv.us/doit/y2k
NY	http://www.nysemo.state.ny.us
	http://www.irm.state.ny.us
OH	http://www.oy2k.state.oh.us
OR	http://risk.das.state.or.us/year2000.htm
PA	http://www.PEMA.STATE.PA.US
RI	http://www.year2000.state.ri.us
SC	http://www.state.sc.us/irc
	http://www.state.sc.us/y2000
	http://www.state.sc.us/epd/y2k

State	Site Address
SD	http://www.state.sd.us/state/executive/military/sddem.htm
TN	under construction: http://www.tnema.org
TX	http://www.dir.state.tx.us/y2k
UT	http://www.cem.state.ut.us
	http://www.das.state.ut.us/year2000/index.html
VA	http://www.vdes.state.va.us
VT	http://y2k.state.vt.us/y2k
WA	http://www.access.wa.gov/2000
WI	http://www.y2k.stat3.wi.us
WY	http://www.132.133.10.9

Additional Comments by Survey Respondents

Several respondents wrote additional comments to qualify or explain their answers to specific questions. While no discernable patterns emerged from the comments, many of the comments are worth noting.

One State noted that its answers applied only to the State EOC, not to other State or local agencies.

One State noted that its EAS equipment is Y2K compliant, but EAS implementation beyond the State warning point is not yet complete.

Several States noted that their 911 systems, police dispatch, and fire dispatch were responsibilities of local governments.

Some States noted that all State agencies were required to develop Y2K contingency plans. Contingency planning was happening at two levels: business continuity planning, applicable to all State agencies, and emergency operations planning, applicable to the State's emergency management agency.

Some States noted that drafts of contingency plans had been or soon would be "completed," but could be revised based on exercises and further review.

Some States noted that they were not developing Y2K-specific plans, training, and exercises, but would rely on existing emergency operations plans, training, and exercises.

Many States noted that multiple Y2K training sessions and exercises had been conducted already, and that more training sessions and exercises were scheduled.

One State noted that news media largely tended to sensationalize Y2K rather than to present facts.

Several States noted that they had conducted Y2K outreach activities to organizations or audiences other than those listed in the survey, including Federal agencies, other State agencies, professional associations, local government, law enforcement task forces, and the general public. One State indicated that they were developing a public information campaign to include mailings and radio/tv announcements.